Science Integration in the Suisun Marsh Planning Process

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On Behalf of
the Suisun Marsh Charter Group Principals'
IEP 2006

Adaptive Management Cycle

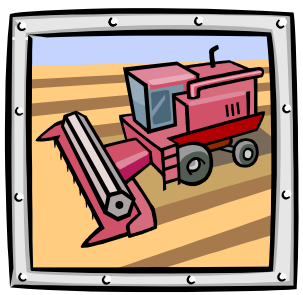
Current State of Knowledge
Plus Policy Decisions

NEPA/CEQA

Plan of Action

Implement and
Monitor Actions

Evaluate



CALFED ROD

Objectives

Program Elements

ERPP Regional Vision for Suisun Marsh

- Habitat improvements to benefit listed and sensitive species, and managed species

MSCS Milestones

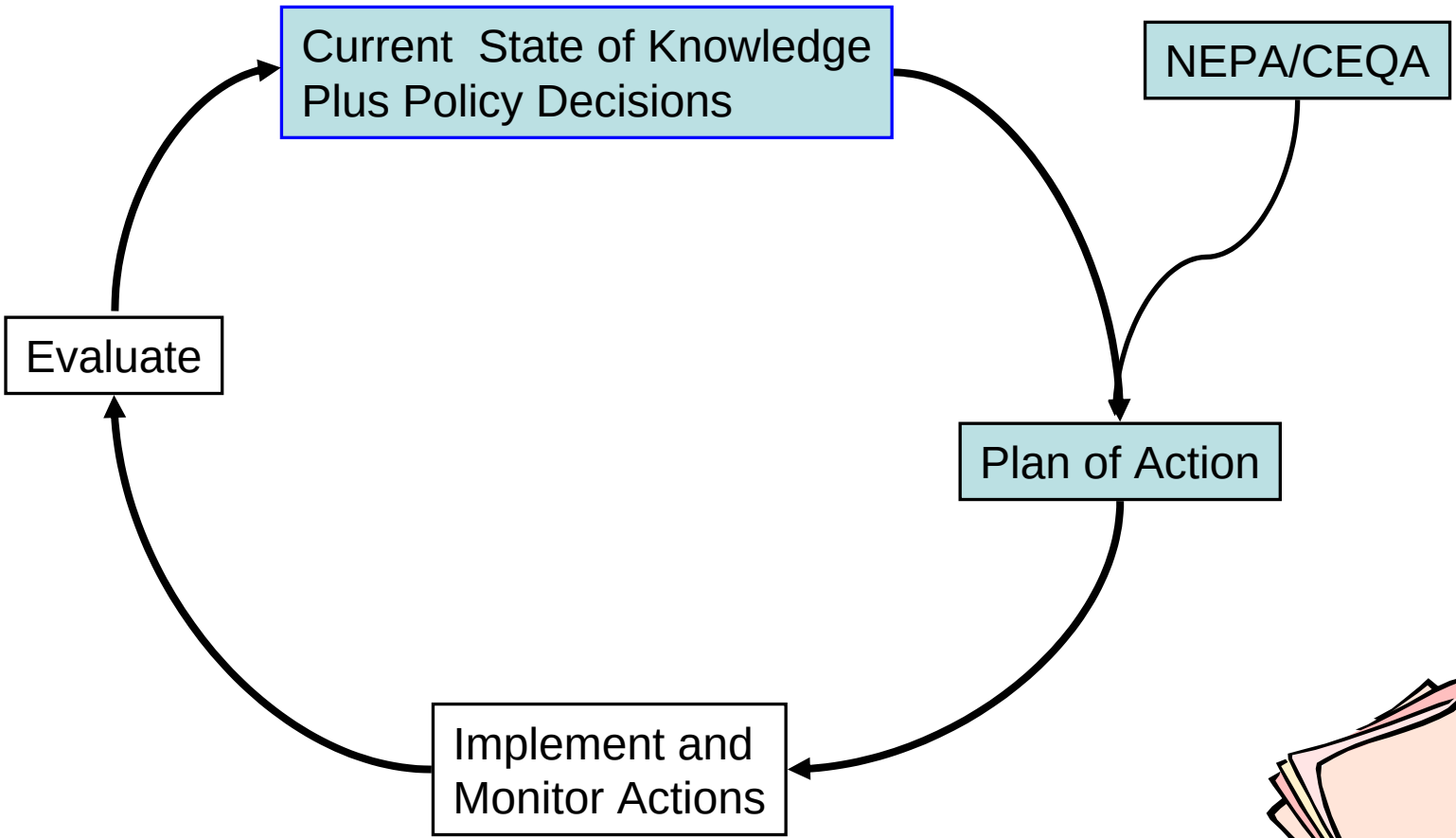
- **Some specific with focus:**

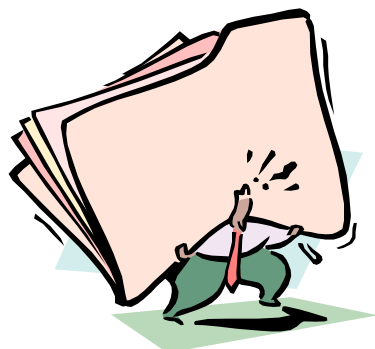
Milestone 38. Restore and maintain
a minimum of three linear miles of riparian habitat …

- **… And some not**

•**Milestone 39.** In the Suisun Marsh/North San Francisco Bay Ecological Management Zone (EMZ),
•restore a minimum of 7,000 acres of Saline Emergent Wetland by restoring tidal action in the Suisun
• Bay and Marsh EMU (including
•200 acres of muted tidal marsh along the Contra Costa shoreline) and a cumulative total of 1,000 acres
• in the Napa River, Sonoma Creek, Petaluma River, and San Pablo Bay EMUs.
•Restore high marsh and high-marsh upland transition habitat in conjunction with restoration of saline em
•ergent wetland.
•Develop cooperative programs to acquire, in fee-title or through a conservation easement, the land
• needed for tidal restoration, and complete the needed steps to restore the wetlands to tidal action.
•Begin aggressive program of control of non-native plant species that are threatening the known populations
• of Suisun thistle, Suisun Marsh aster, soft bird's beak, and Point Reyes bird's beak.

Adaptive Management Cycle

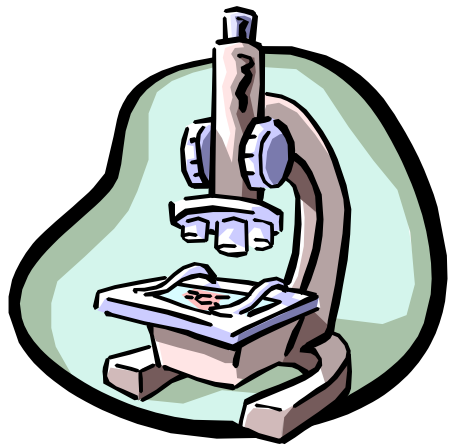




Integration

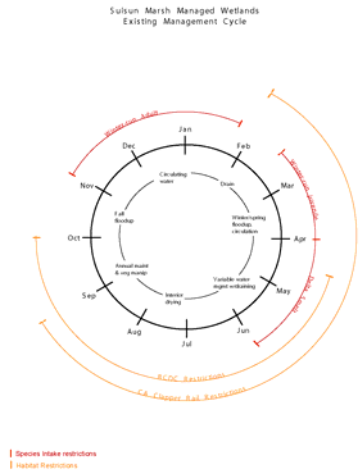
Science Integration Strategy

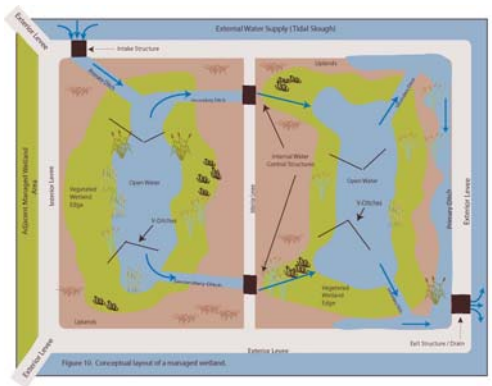
- Current State of Knowledge
- Advice
- Review



Science: What Do We Know Now?

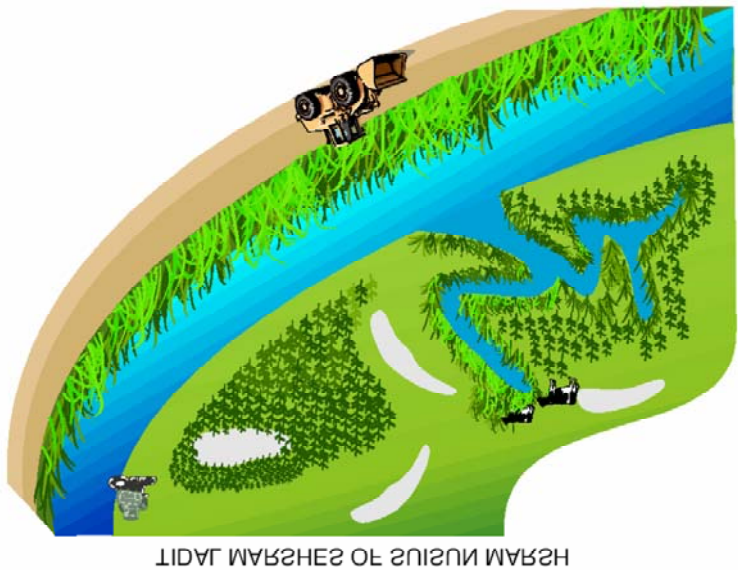
- Current State of Knowledge
  - Suisun Marsh Workshop 2004
  - Conceptual Models



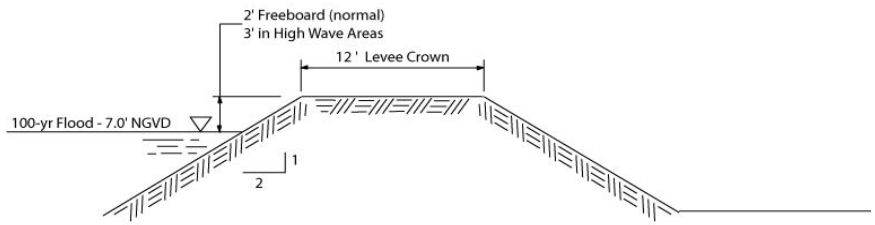


Conceptual Models

- Habitats and Processes
  - Tidal Marsh
  - Managed Marsh
  - Levees
  - Water Quality
    (Hg, OC, Scalar Transport)
  - Subtidal
- Species



TIDAL MARSHES OF SUISUN MARSH



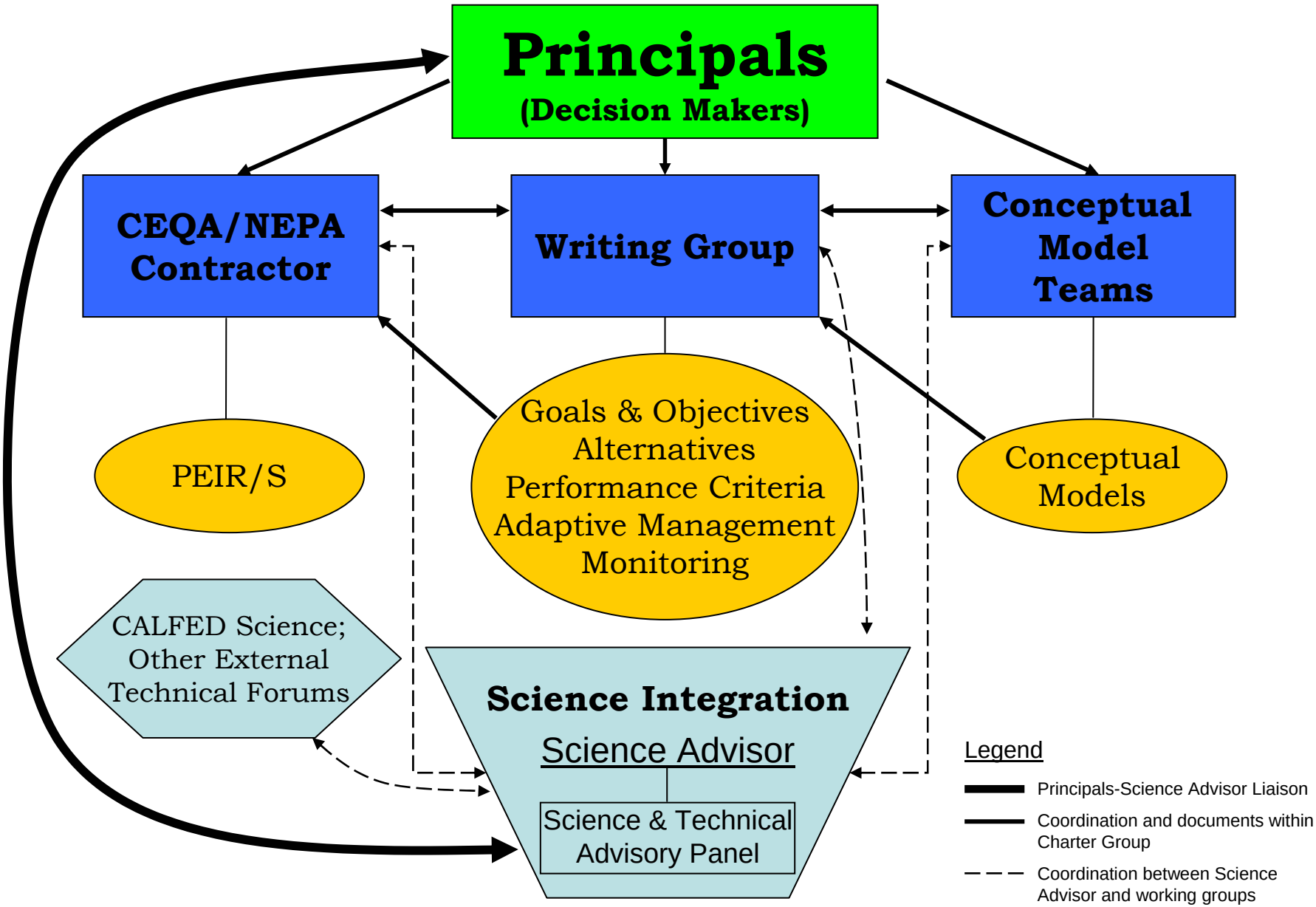
Standard Suisun Marsh
Exterior Levee Section

Science Advice

- Science Advisor
  - Advises Principals
  - Input and support to Writing Group and Conceptual Model Developers
  - Assist Refinement of Conceptual Models after External Review

- Science and Technical Advisory Panel
  - Breadth of knowledge

Science Advising to Suisun Marsh Charter Group



Science Review

- On-going collaborative input
- Internal Peer Review
- External review of specific plan steps:
  - Conceptual Models
  - Alternatives

- Not final PEIS/R
- Technical/scientific issues only

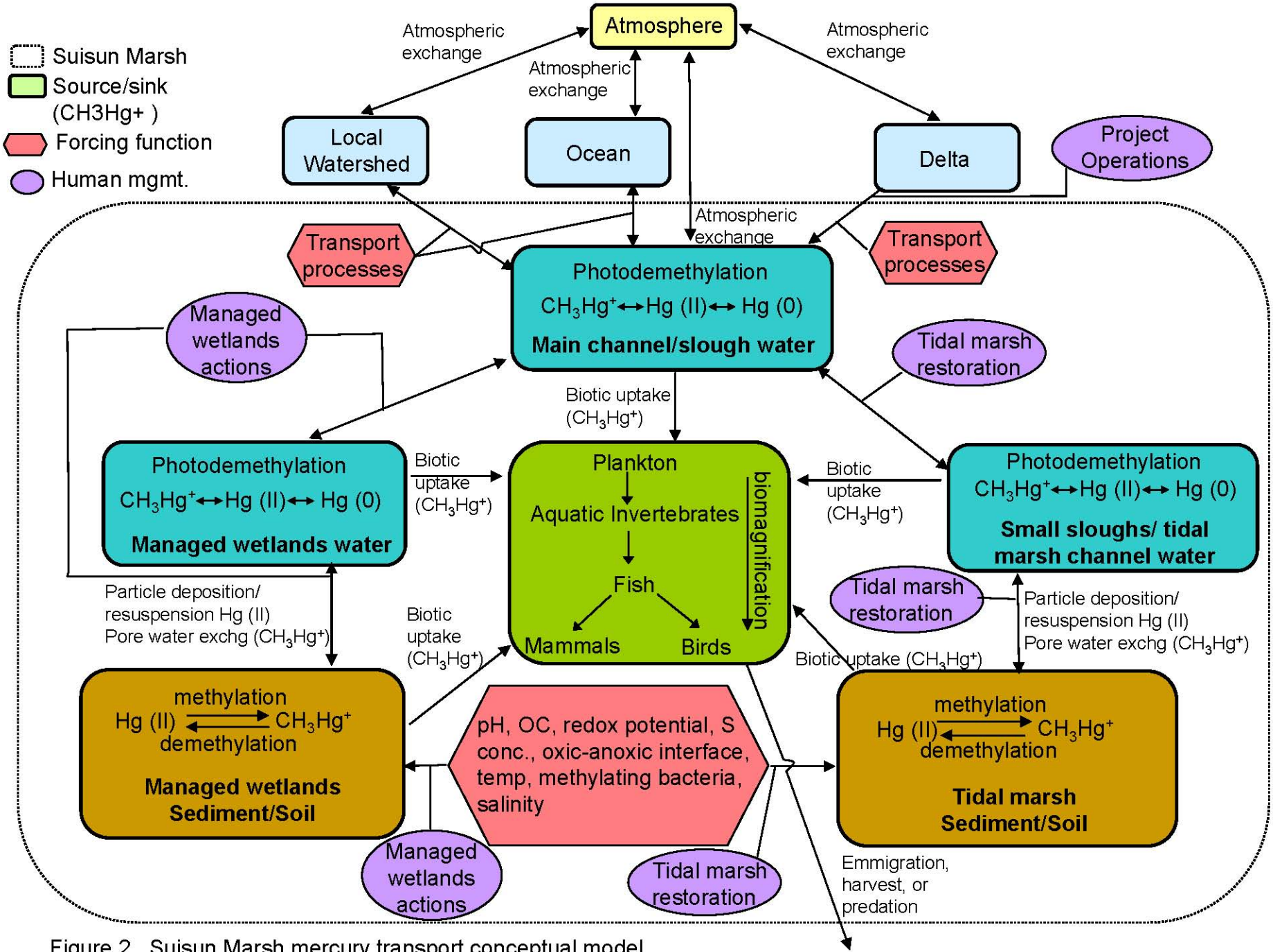
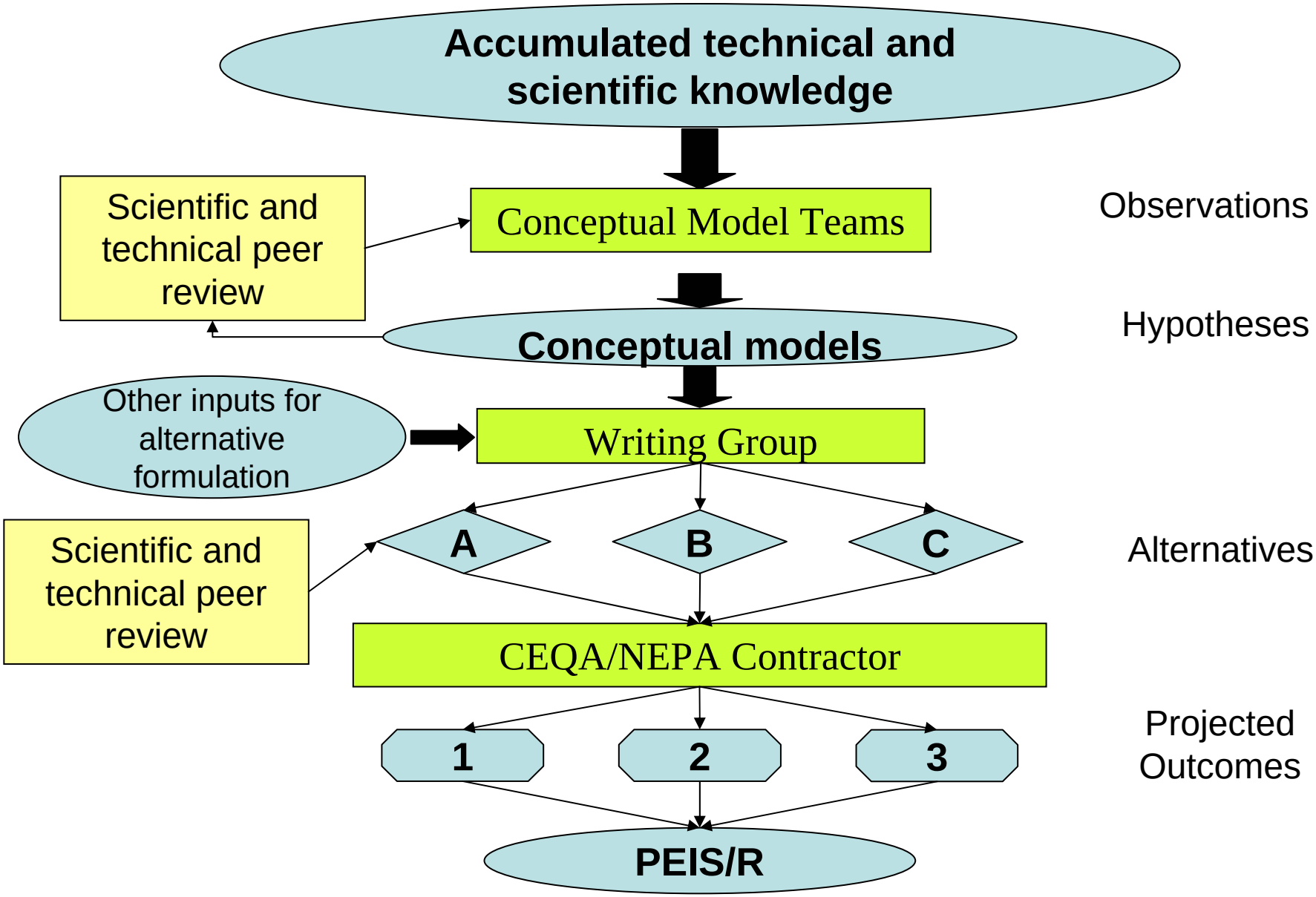


Figure 2. Suisun Marsh mercury transport conceptual model

Integrating Conceptual Models into the Suisun Marsh Planning Process



Value Added

- Good science to achieve desired outcome
- Identify uncertainties and information gaps
- Current investment 5% of plan cost


www.delta.dfg.ca.gov/suisunmarsh/charter
Curtis Hagen, DFG